



Clean Version

In the Claims:

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1. A helicopter having a coaxial rotor set, comprising;  
a first teeterable rotor carried by a first shaft;  
a second teeterable rotor carried by a second shaft;  
wherein the first rotor is configured for cyclic pitch control, and the second rotor does not have cyclic pitch control, whereby pitch and roll control of the helicopter by means of the coaxial helicopter rotor set is effected by cyclic pitch control of the first rotor.
2. A helicopter as set forth in claim 1, further comprising an airfoil disposed in a downwash from the rotor set configured to be actuatable to deflect downwash so as to provide a yaw control in combination with pitch and roll control provided by said cyclic pitch control of the first rotor.
3. A helicopter as set forth in claim 2 wherein the rotor set does not have a collective pitch control and the airfoil comprises a primary means of yaw control.
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- ✓ 4. (Withdrawn from consideration)

✓5. (Withdrawn from consideration)

A2 ✓6. A helicopter as set forth in claim 1, wherein the first rotor comprises the lower rotor of the coaxial rotor set.

✓7. (Withdrawn from consideration)

8. A coaxial helicopter having a coaxial rotor set including a lower rotor carried by an outer drive shaft and an upper rotor carried by an inner drive shaft, comprising:

A3 a cyclic blade pitch control linkage operatively coupled to only one of the upper rotor and the lower rotor;

control of pitch and roll of the helicopter being effected by said cyclic blade pitch control linkage through only one of the upper rotor and the lower rotor; and

wherein the lower rotor and the upper rotor each have a respective diameter, the respective diameters being substantially the same.

✓9. (Withdrawn from consideration)

A# 10. A coaxial helicopter as set forth in claim 8, wherein the cyclic blade pitch control linkages are operatively coupled to the lower rotor. B

✓11. (Withdrawn from consideration)

✓12. (Withdrawn from consideration)

✓13. (Withdrawn from consideration)

14. A coaxial helicopter, comprising:

an airframe;

a power assembly operatively connected to an inner driveshaft and an outer driveshaft;

an upper rotor carried by the inner driveshaft and having a first diameter; B

A# a lower rotor carried by the outer driveshaft and having a second diameter that is substantially the same as the first diameter;

a control system, further comprising:

a cyclic blade pitch control linkage operatively coupled to only one of the upper and lower rotors;

control of at least pitch and roll of the helicopter being effected by said cyclic blade pitch control linkages.

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15. A helicopter as set forth in claim 14, further comprising yaw paddles carried by the airframe impinging upon a downwash from the coaxial rotor set, said yaw paddles being controllably tiltable to redirect downwash air so as to induce and control yaw motion of the airframe.

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16. A helicopter as set forth in claim 14, wherein the cyclic blade pitch control linkage is operatively coupled to the lower rotor.

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✓17. (Withdrawn from consideration)

✓18 (Withdrawn from consideration)

✓19. (Withdrawn from consideration)

✓20. (Withdrawn from consideration)

21. A coaxial helicopter having a first rotor and a second rotor counter-rotating with respect to the first, wherein provisions for control of the aircraft comprise:

a cyclic control for one rotor of said first and second rotors only, and no cyclic control for the other rotor of said first and second rotors;

A6 a yaw control;

wherein pitch and roll control are provided by the cyclic control of said one rotor only; and

wherein the first rotor and the second rotor each have a respective diameter, the respective diameters being substantially the same. B

22. A system in accordance with claim 21 wherein yaw control is provided by at least one of: differential collective control of the first and second rotors; yaw paddles; a tail rotor; a ducted air jet.

✓23. (Withdrawn from consideration)

✓24. (Withdrawn from consideration)

✓25. (Withdrawn from consideration)

✓26. (Withdrawn from consideration)



Version with Markings to Show Changes Made

In the Claims:

Please amend claim 1 as follows:

1. (Amended) A helicopter having a coaxial rotor set,  
comprising;  
  
a first teeterable rotor carried by a first shaft;  
a second teeterable rotor carried by a second shaft;  
wherein the first rotor is configured for cyclic pitch  
control, and the second rotor does not have cyclic pitch control,  
whereby pitch and roll control of the helicopter by means of the  
coaxial helicopter rotor set is effected by cyclic pitch control  
of the first rotor.

Please amend claim 8 as follows:

8. (Amended) A coaxial helicopter having a coaxial rotor set  
including a lower rotor carried by an outer drive shaft and an  
upper rotor carried by an inner drive shaft, comprising:  
  
a cyclic blade pitch control linkage operatively coupled to  
only one of the upper rotor and the lower rotor;  
  
control of pitch and roll of the helicopter being effected  
by said cyclic blade pitch control linkage through only one of  
the upper rotor and the lower rotor; and

wherein the lower rotor and the upper rotor each have a  
respective diameter, the respective diameters being substantially  
the same.

Please amend claim 14 as follows:

14. (Amended) A coaxial helicopter, comprising:

an airframe;

a power assembly operatively connected to an inner  
driveshaft and an outer driveshaft;

an upper rotor carried by the inner driveshaft and having a  
first diameter;

a lower rotor carried by the outer driveshaft and having a  
second diameter that is substantially the same as the first  
diameter;

a control system, further comprising:

a cyclic blade pitch control linkage operatively  
coupled to only one of the upper and lower rotors;

control of at least pitch and roll of the helicopter being  
effected by said cyclic blade pitch control linkages.

Please amend claim 21 as follows:



21. (Amended) A coaxial helicopter having a first rotor and a second rotor counter-rotating with respect to the first, wherein provisions for control of the aircraft comprise:

a cyclic control for one rotor of said first and second rotors only, and no cyclic control for the other rotor of said first and second rotors;

a yaw control;

wherein pitch and roll control are provided by the cyclic control of said one rotor only; and

wherein the first rotor and the second rotor each have a respective diameter, the respective diameters being substantially the same.